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AUTHOR	Elms, Glen D.
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ABSTRACT

The resources of closed circuit television can improve teaching and learning in schools. Three junior high schools in Arlington Heights, Illinois have inaugurated a closed circuit television model program. The program's objectives are improvement of the quality of standard teacher-lesson presentations, redirection of teacher time and energy to individual student help, expansion of students' educational experiences, improvement of teacher competency, implementation of new curricular offerings, encouragement of the team approach to planning, releasing of teachers from classroom responsibilities to prepare and record video tapes, provision of a means for teachers to compare their teaching performance with previous performance and with other teachers' performance (thus bringing about a more favorable attitude toward self-assessment), and more efficient use of student time. Extensive summer workshops have trained participants to prepare video tapes to be used in the coming school year and to further explore and develop new techniques to be used in closed circuit television. Other program activities are dissemination of information, an inclusive demonstration program for visitors, consulting services, and extensive self-evaluation. (MM)

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CLOSED CIRCUIT TELEVISION MODEL PROGRAM

Glen D. Elms

Model Program Coordinator

Elk Grove Training and Development Center
E.S.E.A. Title III
1706 West Algonquin Road
Arlington Heights, Illinois 60005

Gloria Kinney, Director
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I. OVERVIEW OF THE PROGRAM

CLOSED CIRCUIT TELEVISION MODEL PROGRAM

A. Components of Model Program

1. Activities

Visitation

The closed circuit television program is demonstrated at the junior high school level. The program is open for visitation on any day of the week; however visitations must be scheduled through the office of the model program coordinator. Visitors receive an orientation consisting of a slide tape presentation and a discussion which helps to give the complete scope of the program.

Following the orientation session a visit to one of the studios is planned for the visitor. The visitor may then view either the taping of a show or the airing of a presentation. Afterwards, visitors can talk with television programmers, television teachers and students.

Training

Training of persons during the summer is a unique part of the model program. Workshops are held for beginners and intermediates with one workshop session lasting for a one week period. The workshop is designed to be a "hands-on" workshop. Participants spend over 70% of the total time actually operating equipment and preparing television lessons.

During the school year interested teachers may receive released time from classroom responsibilities to work with the television programmers. These programmers are experienced and highly competent in both the technical aspects of television and the production of lessons. The teacher thus becomes a member of a production team, composed of experienced programmers, teachers and students.

Consultant Service

The model program coordinator directs the closed circuit program in the local schools, and serves as the consultant in the workshops held during both the summer and during the school year. The director also serves as the consultant to schools or persons wishing to implement a program within their school.

Released Time

Workshops are being conducted on a released time basis. Provisions have been made whereby the Elk Grove Training and Development Center reimburses the districts participating in the workshop for the cost of the substitute covering the teacher's class while he is attending the workshop. Further released time is available for programmers to provide them with time for planning, working with visitors, and general chances for self-improvement in areas that will enrich the model program.

2. Personnel

Producers: The coordinator of the television model program is Mr. Glen Elms. The secretary is Mrs. Pat Ross. The following list names other persons directly involved in the operation of the television program:

Television Programmers: Mr. Lee Eakright, Mr. David Lang, Mr. Everett Charlier and Mr. David Robinson.

Audio Visual Consultant: Mr. Lewis Crane

Principals: Mr. Frank Santelli, Mr. Thomas Martin and Mr. Robert Spinks.

Director of Instruction: Mr. James Montgomery

Assistant Superintendent of Schools: Dr. Robert Campbell

Evaluator: Mr. Lowell Simmer

Teachers and Students who have helped to make presentations: Too numerous to list the hundreds who are or have been involved.

Consumers:

The consumers of this program are the students and staff who are essentially recipients and not directly involved in the preparation and presentation of programming. Visitors to the demonstrations have held many positions. There have been teachers, student teachers, principals, audio visual personnel, superintendents, other administrators and interested community people. Everyone who is interested is invited. Although a few principals, audio visual personnel and other administrators have participated in the workshop, classroom teachers are the primary participants.

B. Location

The Closed Circuit Television Model Program is composed of three fully equipped television studios. These studios are housed in the Miner Junior High School, Thomas Junior High School and South Junior High School. All schools are located in Arlington Heights Public School District No. 25, Arlington Heights, Illinois. All three junior high schools are used for demonstrations and training activities, although Miner Junior High provides most of the demonstrations. The office of the coordinator is also in Miner Junior High School, 1101 E. Miner Street.

C. Curriculum

Television programming has been divided into three areas-direct instruction, enrichment and experimentation. Direct

instruction is interpreted to mean any television lesson that follows the current curriculum. In each building the team approach to planning and following these lessons is used.

Enrichment programs are used to supplement the regular curriculum. These programs take advantage of the unique and specialized talents of our teachers by making them available to all students rather than restricting them to individual classes. For example, one of our teachers with a strong background in Biology has prepared some programs on human anatomy. These programs will go into classrooms where teachers are less knowledgeable. Other programs that have come from the special interests of our teachers include presentations on computers, history of mathematics, idiot savants, rock hounds, Project Apollo, demonstrations of the potential of liquid nitrogen, the science of cryogenics and how to culture and stain bacteria. Such programs are generally top quality presentations because of the released time available for preparation and the increased use of visual material. The community has many individuals who have much to offer the students but who are reluctant to meet with large groups of students for one reason or another. Television is the medium which can bring these people to the students. Interviews and direct presentations have been most successful. A local chemist, an airline pilot, a representative from the Anti-Cruelty Society, a meteorologist and a pharmacist are just a few of the local citizens who have contributed to the success of our program.

A student quiz program has also provided an enriching experience for our students. The program has been a very effective

motivating influence in all areas of the curriculum. A question about Dr. Louis Leakey can stimulate further investigation into anthropology and the discoveries that have come from Olduvai Gorge, whereas the same information coming from a teacher would cause less reaction. Other programs concerning musical and dramatic activities and topical and current events have been sources for enrichment programming.

The potential uses of closed circuit television however, exceed direct instruction and enrichment. Some of our time and energy is spent on experimentation. Examples of this are found in the areas of in-service training and self-assessment for teachers.

II. RATIONALE

A. Background and History

National

Television has helped to transform postwar America. The spectacular success of commercial television, once the restrictions of World War II were lifted, altered America's leisure time patterns almost overnight.

It seems the first station to broadcast educational television programs was Station W9XK at the University of Iowa. That was in the year 1932. By 1948 several other universities were experimenting with television, including the University of Michigan and American University in Washington, D.C. Then in 1953 Station KUHT-TV, licensed jointly by the University of Houston and the local school board, became the first educational television station, as such, to be activated. Also about this time a milestone in the history of educational television occurred. The Federal Communications Commission established a new category, the noncommercial educational television station, and set aside 242 TV channels for educational purposes.

As broadcast ETV continued to grow, televised instruction also developed along another path, different both in technology and organization. By the early 1950's Michigan State and a few other universities were experimenting with formal course work over closed-circuit television. Since programs are transmitted, via cable or microwave, exclusively to a particular audience that must be especially equipped to receive them, closed-circuit television falls outside the jurisdiction of the FCC.

The advantages are fairly obvious: by using closed-circuit television, a school system can be in complete control of its audience and programs. It can determine, within limits of talent and budget, not

only the content and the quality of output but to a considerable degree, the quantity. The famous system that is centered in Hagerstown, Maryland, for instance, can send out six lessons simultaneously over a coaxial cable linking forty-five schools. Educational users of closed-circuit television can thus make more intensive use of the medium than the schools and colleges that depend on broadcasting stations.

To count the precise number of closed-circuit installations in the country is virtually impossible. Since they need no license, there is no central authority responsible for their number and operation. Some estimates are totals of systems rather than of individual installations. Other estimates concentrate on sizeable installations. For closed-circuit television varies widely - from a simple, inexpensive unit linking camera and receiver in a single classroom and used primarily for purposes of magnification, to an installation designed for a single school building, to operations linking all or nearly all the schools in a state or county.

Furthermore, estimates are outdated as soon as they are made, so rapid is the spread of CCTV.

These, then, are the basic elements that form the structure of instructional television: over 100 ETV stations, most of them broadcasting in-school programs by day; a dwindling number of commercial channels contributing or selling daytime hours for school programs; thousands of closed-circuit systems in schools and colleges, many of them transmitting full programs of courses, in some cases to multiple institutions linked together by cable or microwave.

Local

In the Arlington Heights Public Schools the design for closed

circuit television began with the planning of a junior high school in 1957. The pressure of increasing enrollments and strong demands on the financial resources of the district deferred the initial installation of television equipment until the spring of 1965, after the building had been increased in size by an addition and in student population to approximately one thousand. Then, in January of 1967, an additional installation was added to a second junior high school and an upgrading of the initial installation was completed. Finally, a third installation was added to another junior high in the fall of 1967. Presently then, the three installations involve two thousand nine hundred and twenty-five students and one hundred and fifty one teachers either directly or indirectly.

Each of these three closed circuit installations is designed for the exclusive use of a single building with personnel within each building assigned responsibility for programming. Programs may be shared with other buildings through exchange of prepared video tapes, but generally most programming is done by the individual buildings. The scheduling of the viewing of tapes generally determines how long a particular tape will be preserved. At this time there are no plans to retain tapes for extended periods of time. This is partly due to the cost of the tapes and partly due to the fact that tapes soon become dated.

Involvement is the key to success of television. The classroom teacher must feel he is involved in the television programming, or else he will soon "give up" on the programs. A classroom teacher cannot be told he must watch a particular tape at a particular time if television is to be successful. The scheduling of television lessons

must be flexible enough so that the classroom teacher can incorporate these lessons into his daily planning. Often this means the same tape must be shown several times to accommodate all the teachers. Only in the most unique situation could television instruction take over the whole job of teaching. Instead, television should be thought of as an audio-visual aid available to help teachers in providing effective instruction. (Television may then be regarded as a kind of team teaching.)

Another very important ingredient for success with television is that of time. Classroom teachers must be given released time for planning and presenting lessons. Also, additional personnel should be given time to act as "studio teachers" or "programmers". This can be a very complicated role, involving such tasks as preparing and presenting televised lessons, acting as a director or producer-director for other teachers, a graphics artist, a research director, a curriculum expert, a technical assistant, etc. The programmer will be the prime agent of "utilization", which is television shorthand for "getting television used effectively in the classroom."

B. Documentation

The use of television for presentation of regular classroom instruction is approximately fifteen years old. In this short time instructional television has probably been subjected to more research than any other instructional innovation. Most of the investigation of television's quality as an instructional medium has been concentrated on measuring objective results. The most extensive phase of research was characterized by a great many studies of relative effectiveness, in which learning from televised instruction was compared with that

resulting from direct classroom instruction in many academic subjects at a variety of educational levels ranging from elementary through college.

There have been a number of excellent summaries of these studies of comparative effects on student achievement. The first was Kumata's An Inventory of Instructional Television Research, published in 1956[1] A later comprehensive review was that by Holmes in 1959[2]. Two more surveys include one by MacLennon and Reid[3] and another by Schramm[4]. The results of all these studies are overwhelmingly affirmative: students learn through TV. The Schramm[4] survey is easily the best-known and his conclusions are worth quoting:

> There can no longer be any doubt that students learn efficiently from instructional television. The fact has been demonstrated now in hundreds of schools, by thousands of students, in every part of the United States and in several other countries.....
>
> Instructional television is at least as effective as ordinary classroom instruction, when the results are measured by the usual final examinations or by standardized tests..... (And) employing the usual tests that schools use to measure the progress of their students, we can say with considerable confidence that in 65 per cent of a very large number of comparisons between televised and classroom teaching, there is no significant difference. In 21 per cent, students learned significantly more, in 14 per cent, they learned significantly less, from television.

Two other studies worth mentioning are one by Stickell[5] and a recent study by Chu and Schramm[6]. The latter study contains a selected bibliography of 303 studies involving television instruction.

If the reader is interested in one source which gives the "feel" for accomplishments and failures of television, read Learning By Television[7]. This book points out the problems of why television, after more than a decade of intensive effort and the expenditure of hundreds of millions of dollars, has not made any real impact on America's schools and colleges.

III. PURPOSE

A. Purpose of the Model Program

1. Values, Beliefs, Assumptions

The value of television as a teaching tool has been successfully demonstrated. Its utilization at all levels of education over an extended period has established this medium as a significant and useful tool in the hands of the skilled teacher. In Arlington Heights we believe instructional television can make a definite contribution toward upgrading the quality of education in the junior high schools. We believe that the major key to the successful use of television in the classroom is the attitude of the teacher. Experience has indicated that a teacher may predetermine many outcomes of classroom activities simply by evidencing enthusiasm, knowledge, and a sensitivity to the job at hand. The reaction of the teacher to instructional television must be positive if the medium is to be effective. We also believe for television to be effective there must exist a spirit of cooperation on the part of all the school administrative and supervisory staff involved. Above all, the classroom teacher must understand its purpose and uses and be prepared to exploit its contributions to the teaching-learning process to the fullest advantage.

2. Promise for Educational Change

In visitations to television installations in schools in other parts of the country, no indications of programs similar to ours were found. While our program does not represent a pioneering effort in television, it is felt it is unique in some respects. One of these is that each of our three closed circuit installations is designed for

the exclusive use of a single building with personnel within each building assigned responsibility for programming. By doing this, we feel we have eliminated two of the big problems that come with central studio broadcasting; namely, the huge scheduling problem and the feeling on the part of students and classroom teachers that the television staff members are removed and therefore not involved with the operation of the school's instructional program.

A second unique factor is the use of CCTV to foster cooperative teaching in the junior high school. We believe that the student benefits when groups of teachers work together to plan and present the lessons.

A final unique feature is the establishment of the summer workshops which are used to acquaint teachers with television teaching. Here the teachers spend 80% of the time working with equipment, planning and presenting television lessons.

B. Objectives of the Model Program

1. Objectives of the program as originally formulated:

   a. CCTV will improve the quality of lesson presentations in the standard curricular areas

   b. CCTV will allow for the redistribution and more effective use of teacher and student time

   c. CCTV will expand the educational offerings to the students

   d. CCTV will allow for cooperative planning among teachers

   e. CCTV will improve teacher competency

f. CCTV will allow for rapid implementation of new curricular offerings

2. Objectives as presently formulated:

a. The quality of teacher-lesson presentations in the standard curricular areas will improve

b. Teacher time and energy will be redirected to individual student help

c. Students will receive expanded educational experiences through television

d. Teacher competency will improve through involvement in CCTV

e. New curricular offerings will be rapidly implemented through television

f. The team approach to planning will be used

g. Teachers will be released from classroom responsibilities to prepare and record video tapes

h. Teachers will be provided with a way of comparing their performance with other teachers and with their previous performance

i. Teachers will have a more favorable attitude toward self-assessment

j. Student time will be more efficiently used

C. Relation of the Model Program to the Basic Questions of T & D

1. Because of the nature of closed circuit television it becomes impossible for the participants involved in the model program

not to expose and study, openly and objectively, their own behavior as a result of their involvement in the program. When teachers make television lessons they automatically expose their teaching behavior to large numbers of students and staff. Television also is the most objective tool currently available to professionals who are interested in studying their own behavior.

2. As a result of our program we hope the professionals will see that the teacher's role is to help the students to develop their abilities, to treat students in a friendly, encouraging manner, to be patient with their rate of progress, to understand the nature of children, that learning is fun, and that creativity may be nurtured within a framework of order.

3. The training received through the Center will help the participants develop the following skills:

a. to plan and prepare television presentations cooperatively

b. to include television as an audio-visual aid in lesson preparation

c. to develop greater appreciation of television as an instructional aid

d. more specifically, they will learn how to operate a television camera and a videotape recorder, how to properly light a set, how to write scripts for television, how to operate audio for television presentations, how to prepare visual aids for television, how to evaluate prepared television lessons and how to direct others (teachers and

students) in television presentations.

4. If learning outcomes of students are directly influenced by teachers, then it would seem that any change in the teacher's behavior would have an influence on his student's behavior. For example, when a teacher changes his behavior because he was dissatisfied with that behavior after viewing himself on television, we can only believe this change will be passed on to his students. Evaluating these changes, both in teachers and in students, is a difficult task; however, we believe that participation in our program has helped to change teachers' behavior, attitudes, procedures and techniques toward and in the teaching-learning process.

IV. ACTIVITIES

INTRODUCTION

The activities of this model program fit into four categories. In this section of the report each category of activity is described. The categories to be discussed are as follows: 1) Training 2) Dissemination 3) Demonstration 4) Consulting.

TRAINING

The major portion of the training program has been carried out during the summer months. It is felt that summer is the prime time to work with and involve teachers in television training.

During the summers of 1967 and 1968 two types of workshops were held. The first type was primarily for beginners, while the second was designed for people who had already had experience with closed circuit television.

The purpose of the beginners' workshop was to acquaint participants with CCTV equipment, with program preparation, and with program presentation. The content outlines and syllabi are found in Appendix B. The workshop for intermediates was primarily designed to allow participants to prepare videotapes for classroom use and experiment with new CCTV techniques.

Each workshop extended for a one week period of time. Each summer, four sessions were held for beginners and two sessions for intermediates. During the summer of 1969 an additional two weeks of beginners' workshops are being planned. Each summer the number of applications far exceeded the number of participants that could be accepted. For example, in 1969 there were approximately three applications for each opening. Each participant who attended the workshop was paid a stipend of seventy-five dollars. Also, a sum of money

was set aside to hire substitute teachers to take over classroom responsibilities for those teachers interested in following up their summer workshop experiences. For these teachers who were interested in follow up, an opportunity was given to work on a one-to-one basis with experienced television personnel.

The overall philosophy of the training sessions was one of an active role for the participants. The workshops were coined "hands-on workshops" because eighty per cent of the time spent was spent working with studio equipment and program presentation. The remaining twenty per cent was spent in lecture and small group discussion. In all of the training sessions the instructors attempted to provide variety in the types of participant involvement.

Another type of training that was carried out might be termed minimal training. These sessions were usually for a half day and consisted of merely training personnel in how to set up and operate television equipment. No attempt was made to acquaint participants with techniques used for program presentations.

The Model Program Coordinator also worked in a great number of one-to-one sessions with teachers who needed help with video techniques they planned to use with their classes. These teachers were usually people who were using television equipment for the first time in their classroom.

DISSEMINATION

The dissemination activities of the closed circuit television program consisted of a) articles published in the Training and Development Center Newsletter, in local newspapers and in District 25 newsletters and dispatches, b) distribution of printed materials at

educational meetings and conventions, c) presentation of papers at national and regional educational conventions, d) distribution of a brochure inviting educators to visit the program, and e) discussion sessions held with interested individuals and groups.

Let us briefly consider how each of these activities were used as a dissemination device for the CCTV program.

a) Articles in various newsletters and papers

The Training and Development Center periodically sent out a newsletter reporting on and announcing the activities of the various model programs. This newsletter was sent to three thousand individuals connected with education institutions throughout the country. Also many articles appeared in both the DAY PUBLICATIONS and PADDOCK PUBLICATIONS newspapers. The CCTV Coordinator supplied the district newsletters and dispatches with many articles. An article on our program also appeared in the I.E.A. monthly magazine.

b) Distribution of printed materials at educational meetings and conferences

During the last year of operation of the Training and Development Center, CCTV materials were displayed at Illinois Association for Supervision and Curriculum Development state meetings, the National Convention of the ASCD, and Northern Illinois University, DeKalb, Illinois.

c) Presentation of papers at national and regional educational conventions

A paper which described and related how our program used television in science education was presented at the 1967 National Science Teachers Association Convention held in Detroit, Michigan.
A second paper describing mathematics teaching via television was presented at the 1967 Central Association of Science and Mathematics Teachers Convention held in Chicago, Illinois. With each presenta-

tion, additional individuals become acquainted with the activities of the CCTV program.

d) Distribution of brochure

A brochure, which in format resembles a humorous greeting card, was developed and mailed to hundreds of educators throughout the country. Because of this brochure (which was an invitation to visit the program, rather than a description of the program) many educators came to visit our program.

e) Discussion sessions with interested individuals

From time to time individuals or groups would contact the Center wishing to find out more about the program. After these individuals and groups were accommodated, they returned to their educational institutions. From follow-up instruments mailed to these visitors it was found that they disseminated their findings about CCTV to others in their various districts.

DEMONSTRATION

When someone comes to visit the program, he is oriented to the existing program by the Model Program Coordinator. Before orientation begins, the visitor is asked to fill out a visitor's form which is filed. This gives an accurate record of persons visiting the program and how they learned of its existence. The visitor is also given a short description of the program to read, which presents a brief history of the program and some initial information about it. There is a slide-tape presentation which describes program activities, states the objectives, gives a general overview of equipment, and presents the basic philosophy of the program. This presentation is followed by a question and answer period which clarifies and expands on the presentation. A tour of one of the studios is next on the agenda.

Here one gets the opportunity to see all the equipment and view it in operation. A visit during an actual taping of a show can be arranged. Next the visitor has the opportunity to talk with students, teachers, and television personnel who have been involved with the program. Following this, a summary session is held in which the visitor gets the opportunity to fill out a form which evaluates the entire demonstration process.

CONSULTING SERVICES

Consulting services in this program were made available upon the request of the consumer. Requests for service were a direct "spin-off" from two other activities of the CCTV program, namely training and dissemination.

Some examples of services provided included work with local curriculum study groups, individual consultations with area audio visual consultants, and work with other model program coordinators.

V. EVALUATION

INTRODUCTION

Evaluation procedures were an integral part of the activities of the closed circuit television program. This was particularly so in the areas of visitation, training and programming. The retrieval of evaluation data from participants involved in these three areas was very important to the attainment of the objectives of the model program. Feedback data which was gathered often resulted in modifications of the objectives and procedures of the program.

VISITATION

The first evaluation measure used in the closed circuit television program was a card given to visitors immediately before their visitation to the program. This card was used during 1967 and most of 1968 until the evaluation team of the Training and Development Center developed a registration form which the coordinator used as a replacement. The visitation form was then used for the remainder of the program. A sample of both the card and the form are included in Appendix C. These cards and forms were gleaned immedaitely for any pertinent data, and also reflected upon periodically in a compiled form to obtain feedback for modification of the program.

The second evaluation measure that was used in the program was a follow-up evaluation form which was sent to visitors approximately one month after they had visited the program. A copy of these forms were analyzed to obtain feedback for modification of the program. These two forms helped to answer the following evaluative questions.

How many visitors have there been to the CCTV program?

2. What modifications, if any, need to be made in the visitation format of the CCTV program?

3. What impact was the visit having in relationship to educational change in the area of closed circuit television?

TRAINING

As stated previously, the major portion of the training program has been carried out during the summer months. The evaluation of this program was done primarily to see if its objectives were being achieved. To understand the evaluation procedures used for the training sessions it is then first necessary to know the objectives. The objectives for participants in the intermediate workshop were that they would be able:

1) to prepare a videotape to be used during the coming school year

2) to further explore and develop new techniques to be used in closed circuit television

The objectives for participants in the beginners' workshop were that they would be able:

1) to operate a television camera

2) to operate a videotape recorder

3) to operate audio for television presentations

4) to prepare visual aids for a television lesson

5) to write a script for a television lesson

6) to evaluate prepared television lessons

7) to direct others in television presentations

8) to prepare a complete television lesson, including being the on-camera instructor

9) to become familiar with closed circuit television equipment, its operation, cost and potential

10) to express a favorable attitude towards the use of closed circuit television in the public schools.

To achieve the first eight objectives a checklist was kept to see that each participant achieved each goal. The instructional staff, primarily by observation, then evaluated these objectives. That is, did those who participated become involved in completing these objectives. All participants did prepare a videotape lesson, and, by working in teams, did get the opportunity to achieve the other seven objectives.

A pencil and paper test over the cognitive aspects of closed circuit television was administered at the conclusion of the workshop to see if objective nine was being fulfilled. The test and the results from the 1968 workshop are found in Appendix C. The reader is welcome to see how he can do on that test.

A pre and post test using a form of the Semantic Differential was administered to determine if objective ten was being fulfilled. The post test also used open ended questions to give the participant the opportunity to express his views about the workshop. The Semantic Differential used contained a total of sixteen pairs of polar adjectives such as: fair-unfair, worthless-valuable, impractical-practical, etc. As can be seen from the results of the 1968 workshop, Appendix C, the changes in attitude produced a significant shift toward a positive direction.

Evaluation of the intermediate workshop was done entirely by observation. That is, did all groups prepare a videotape and did new techniques get developed.

After both the 1967 and 1968 workshops were completed an evaluation report was submitted which compiled the results of the previously described techniques. Each year the conclusions were clear; the summer workshops were very successful.

A follow-up instrument was then mailed to all participants of the 1967 workshop approximately six months after the workshop. A similar instrument was also mailed after the 1968 workshop to all participants. See Appendix C, for a compilation of the results of the 1968 follow-up instrument.

Some of those results seem appropriate however to be mentioned here for the reader's convenience. A total of 81 instruments were mailed and a total of 57 were returned. This represents a percentage of 70% returned. 48 or 86% of the participants stated that their district has received equipment since attending the workshop. 18 or 32% stated they have had no participation with CCTV since attending, while 39 or 68% stated they were using television as an instructional tool. 11 or 20% of the participants are currently in charge of CCTV in their districts. 14 or 25% of the participants have been involved in the training of additional personnel. Those 14 trainees have in turn trained an additional 123 people. 36 or 63% of the people stated they would like to attend another workshop.

PROGRAMMING

The primary objectives of the closed circuit television installation were concerned with teacher behavior. No claims were made for increased student achievement or performance through the use of television. Rather, we intended only that no adverse effects on student learning occurred. As stated previously, students do learn from television.

However, we did feel that the programming that the students viewed needed to be evaluated. Since evaluation is supposed to be

the science of providing information for decision making, we wanted this information to make the right decisions about our programming.

During June of 1967 an attitude survey about our seventh grade mathematics programming was given to students. See Appendix C. The results we obtained were that the large majority of students were looking forward to receiving further instruction via television. Also, the majority of students rated "mathematics on television" more favorably than they did their textbooks. This favorable response to our program resulted in continuation of the television program in 1968 as well as expansion of television instruction into other areas of the curriculum.

Each year other questionnaires were given to teachers who were involved with television programming. The questionnaires were primarily concerned with how programming could be improved and also what attitudes the teachers had towards television instruction.

An example of the results obtained from these questionnaires can be seen from what our mathematics department had to say about math via television. Five out of six teachers answering the questionnaire felt that their teaching had been different because of the television lessons. Five teachers stated that they were anticipating continuing television lessons. These teachers also recommended that television lessons be continued and expanded.

Another type of evaluation of programming that was carried out dealt more specifically with the quality of each individual program. After any televised lesson the classroom teacher was asked to complete an evaluation form about that lesson. See Appendix C. This form dealt with many of the aspects of the program such as audio, picture, visuals, vocabulary, length etc. After the classroom teacher

completed this form it was then returned to the television teacher, who analyzed it. These forms brought about many changes in our programming.

Also, during May of 1968, a survey of students was taken to determine what they felt about the quality of the television lessons they were viewing and also how much time students spent, on the average, viewing. Since videotapes were played sometimes to thirty students and sometimes to three hundred students we could not otherwise determine how long each student spent per week in viewing.

Two hundred students were selected at random to participate in the survey. These two hundred represented in equal portions the 6th, 7th and 8th grades. After every time one of these students viewed a television lesson he completed a brief form which asked the amount of time spent in viewing and if the television lesson was very valuable, valuable or not valuable to him. The survey lasted for four weeks.

The results over the twenty day period were that the students viewed a total of 1,564 modules (or 782 hours - 46,920 minutes.) Those students averaged 7.94 mods viewing time over that twenty days. Hence, they averaged 1.98 mods per week viewing time. (391 mods per week average). A module lasted for thirty minutes.

6th graders viewed 304 mods in 4 weeks = 76 per week for an average of

$$\frac{76 \text{ mods/week}}{70 \text{ students/sample}} = 1.1 = \boxed{33 \text{ minutes average viewing time}}$$

7th graders viewed 633 mods in 4 weeks = 158 per week for an average of

$$\frac{158 \text{ mods/week}}{60 \text{ students/sample}} = 2.6 = \boxed{78 \text{ minutes average viewing time}}$$

8th graders viewed 627 mods in 4 weeks = 151 per week for an average of

$$\frac{151 \text{ mods/week}}{67 \text{ students/sample}} = 2.4 = \boxed{72 \text{ minutes average viewing time}}$$

The results to the question asked were that out of a total of 1,111 responses, 330 or 30% checked very valuable, 588 or 53% valuable, and 193 or 17% not valuable. This represented a total of 83% positive responses and 17% negative responses.

We were not only interested in quality of lessons but quantity. So to find out how much time studios were used, accurate records were kept and each studio published a monthly utilization report. This report listed the percentage of time spent per week by studio personnel in conferences, the percentage of time spent in playing videotapes, and what per cent of time was spent in recording future videotapes. See Appendix C for an example of one of these utilization reports.

TRAINING PROGRAM PARTICIPANTS

During the operation of the closed circuit television program, a total of 135 individuals participated in the training offerings of this program. The chart below indicates the number of individuals, school district, affiliation and educational responsibility of the individuals involved.

CONCLUSION

In summary, closed circuit television is an educational tool whose basic effectiveness has been demonstrated. Yet its ultimate contribution to improving teaching and learning in the schools remains to be determined. As with any instructional tool, the utilization of television and the results achieved depend on those who work with it. On them also depends the usefulness, the variety and the quality of televised instruction. It is time for a thorough, dynamic effort to

improve the quality of instruction, not just over television but throughout our entire educational system, with television as one of the many instruments that can be used to give each child, wherever he may live, the opportunity to become all he is capable of being.

TABLE I: SCHOOL TRAINING PARTICIPANTS

No.	District	Elementary	Junior High	High School	Supervision
19	214			19	
68	25	5	63		
9	21		7		2
8	59		8		
7	15	3	4		
2	211			2	
2	108		2		
1	69		1		
3	57		3		
2	72		2		
1	116			1	
4	161		3		1
2	St. James		2		
1	St. Viator's			1	
2	Wayside		2		
1	St.Raymond's		1		
2	Geo.Washington Charleston,W.Va.			2	
1	65			1	
135		8	98	26	3

Reference Page

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APPENDIX A

Chronological Overview

January 13, 1967	Planning Meeting between visiting team from T&D Center and Arlington Administration team
January 20, 1967	Application made to T&D Center to approve CCTV as a model
January 20, 1967	CCTV Coordinator appointed
March 20, 1967	"Using CCTV to Enrich Junior High School Science" presented at the National Science Teachers Association Convention, Detroit
March 20-April 10, 1967	Development of series of science telecasts with new programmers at Miner Junior High School
March 28, 1967	Slide presentation made at Thomas Junior High School P.T.A.
April 15, 1967	Additional equipment was installed in Miner Junior High School and new equipment in Thomas Junior High School
April 15-May 15, 1967	Planning of Summer Workshops
April 24-April 27, 1967	Staff attended Ampex Video Institute Elk Grove Village
May 15, 1967	Acceptance of 55 applicants for Summer Workshops
June 19-July 3, 1967	Summer Workshops (3 one week sessions)
August 14-August 28, 1967	Three one week sessions held in training of personnel for CCTV
August 20, 1967	N.B.C. telecast of description of our CCTV installation
September 15, 1967	Development of brochure which describes CCTV program
October 15, 1967	New installation of equipment at South Junior High School
October 24-October 28, 1967	CCTV workshop held at Lincoln Junior High
November 15, 1967	Completion of description of program

December 3-December 8, 1967	Training session held with Chicago teachers - Woodson School
February 15, 1968	Completion of plan, budget and evaluation model for program
February 21, 22, 1968	Minimal Training Program, Glen Ellyn, Illinois
March 21-March 24, 1968	Conference on Television, St. Cloud, Minnesota
May 15, 1968	Acceptance of applicants for Summer Workshop sessions
June 17-June 28, 1968	Summer Workshops both for beginners and intermediates held(3 one week sessior
August 12-August 23, 1968	Summer Workshops both for beginners and intermediates held(4 one week sessior
October 29, 1968	Minimal Training Program held, Dryden School
November 12, 1968	Minimal Training Program held, Administration Building, District 25
November 19-November 22, 1968	Annual Convention of National Association of Educational Broadcasters
November 26, 1968	Minimal Training Program held, South Junior High School
January 14, 1969	CCTV Workshop - Thomas Junior High
January 16, 1969	CCTV Workshop - Westgate School
January 27, 1969	CCTV Workshop - Campanelli School
April 28 - May 1, 1969	Division of Audio Visual Instruction-N.E.A. - Annual Convention, Portland, Oregon
May 19, 1969	Acceptance of applicants for CCTV Summer Workshops
March - May, 1969	Writing of Final Report
June 16 - July 1, 1969	Training sessions for CCTV beginners (2 one week sessions)

APPENDIX B

Sequence Syllabi

Typical CCTV Workshop Schedule

MONDAY 9:00-9:30

Welcome, introductions, orientation to building
Coffee and rolls
(Al will prepare coffee, Glen will get rolls)

9:30-10:30

Glen:

A. Description of Training and Development Center activities, reason for workshop

Rationale:

1. Need for becoming involved in new ideas as well as observing them.
2. T&D Center activities include demonstrations, training programs and continuous developmental work.
3. CCTV as part of T&D Center - use of summer workshops and released time.
4. Need for evaluation - reporting to government. Evaluation of workshops - will include some written evaluation.

B. Overview of the week's activities

1. Some flexibility
2. Some of the morning activities will be spent in discussion and lecture
3. Afternoon - working in studio with equipment
4. Each is expected to prepare a presentation while others serve as cameraman, director, etc.
5. There will be a final exam
6. Stipends will be mailed
7. Reference materials are available

C. Give pre-test

10:30-10:45 Break

10:45-12:00

A. Glen: Brief description of general program in District 25. Its beginning, first year, second year, role of programmers, use in other buildings.

B. Al: Extent of programming during the year. (Number of programs, use of VTR etc.)
1. 7th grade mathematics
2. Science

3. Miner Bowl
4. L.A.S.S.
5. Others

Show videotapes of different programs as an example of the kind of programming in District 25.

12:00-1:00 LUNCH

1:00 Room 38 BREAK INTO TWO GROUPS

Room 40 - Group I - operation of VTR-threading, playback, controls, etc.

Room 40 - Group II - operation of modulator, live programming, videotape, modulator adjustments, audio control, camera operation.

2:15-2:30 Break

2:30 - Both groups complete studio assignment #1

TUESDAY 9:00-10:15

Room 38 Glen: Lecture discussion on CCTV equipment

1) TV Receiver - frame, field, raster, picture tube
2) TV Camera - vidicon, orthicon video, RF, lenses
3) Videotape Recorder - ½ inch, 1 inch, 2 inch tapes; different makes.
4) Distribution of signal - RF video
5) Lenses, -zoom, fixed, 1 inch, 2 inch, 4 inch
6) Audio

10:15-10:30 Break

10:30-12:00

A1:

1) Preparation of visuals, gray scale, contrast ratio, aspect ratio, clothing.
2) Lighting
3) Sound - use of auxiliary sources
4) Staging - camera angles, background, camera movements.

12:00-1:00 LUNCH

1:00-1:20

Room 38 Glen: Slides of some of programs showing studio set-up and variety of programming

1:20 - Room 40 - Do studio assignment #2 and make a tape on

"How to clean your video tape recorder". Use the CCTV Video Workshop script provided.

WEDNESDAY 9:00-9:30

Glen: - Review and discussion of any of the technical information.

9:30-12:00- Assignment: prepare own program, 5-10 minutes. Write script and outline for director, prepare visuals including titles, involve others as cameramen, director, etc.

12:00-1:00 LUNCH

1:00 - continue on assignment

THURSDAY 9:00-9:30

Discussion on utilization, educational TV, materials for viewers, materials for viewing teachers, cooperative planning, cooperative evaluation.

9:30-12:00 Set up schedule for taping. Tape programs.

12:00-1:00 LUNCH

1:00 Room 40 - Studio to prepare tapes.

FRIDAY 9:00-12:00

Room 40 - Prepare and view tapes

12:00-1:00 LUNCH

1:00 - Final exam and evaluation.
Finish any tapes.

APPENDIX C

CCTV Model Program, District 25
Arlington Heights Public Schools

Date_____

Name_____

Position_____

School and/or
District_____

How did you learn of this Model Program?

What do you hope to see and learn while you are here?

AFTER-VISIT EVALUATION

NAME _____ DATE _____

SCHOOL _____ SIZE OF SCHOOL _____

ADDRESS _____

SIZE OF COMMUNITY _____

POSITION _____

1. Name of other people in your school system who should know of this model program.

2. Did this visit give you ideas for something you want to do in your school? What are they?

3. Please give your suggestions to help us acquaint future visitors to our closed circuit televison program.

4. Other comments:

the Elk Grove Training and Development Center

1706 West Algonquin Rd., Arlington Heights, Ill. 60005 (312) 259-8050

REGISTRATION FORM

PLEASE PRINT

Purpose of contact made:

☐ Visit ☐ Workshop ☐ Conference

Date_____

Name_____
(Last) (First) (Middle Initial)

Title and/or Position_____
(Be specific

Address_____ _____
(Number) *(Street, route, box no.)*

_____
(Name of School District or employers) *(District No.)*

_____
(School or building)

_____
(City) *(State)* *(Zip Code No.)*

Sex: M____ F____ Highest degree held:_____
(Specify)

Subject Speciality:_____
(Be specific)

_____Years experience in education profession.

Circle the grades you have taught: K 1 2 3 4 5 6 7 8 9 10 11 12

____Junior College ____College ____Other_____
(Specify)

The school you work in is: __elementary __junior high __high school __other_____
(specify)

Number of students in your school _____, in the District_____

Number of teachers in your school_____, in the District_____

How did you learn of this (these) Model Program(s)?

____Brochure ____Supt. ____Principal ____Curriculum Director ____Teacher

____Speaker ____Other_____
(specify)

Will you respond to a follow-up in the near future? ____Yes ____No

RL:jh
10/68

Communication was focused on:

English..... 1
Madison Math..... 2
Developmental Math..... 3
In-Service..... 4
Indiv.Instr./Learn.Centers 5
Social Studies..... 6
Science..... 7
Self-Imposed Schedule..... 8
Orff Music..... 9
Motor Facilitation..... 10
Closed Circuit TV..... 11
Fine Arts..... 12
Evaluation.....13
Leadership Training.....14
T & D Center.....15

TABLE II

A report of the results of the cognitive test.

25 item instrument (39 responses)

Range of Number Correct	23-15
Mean of Number Correct	19
Median of Number Correct	19
Mode of Number Correct	19

CCTV WORKSHOP - FINAL EXAMINATION

Name _____ Date _____

1. An Ampex videotape recorder used regularly should be cleaned
   a) at least once a month
   b) at least once a week
   c) at least once a day
   d) only by a factory service representative

2. The cheapest cameras for closed circuit television contain a
   a) vidicon tube
   b) orthicon tube
   c) plumbicon tube
   d) cathode ray tube

3. The aspect ratio for television is
   a) 4:5
   b) 3:4
   c) 3:10
   d) 2:1

4. Low impedence mikes are usually preferred over high impedence mikes because they
   a) cost less
   b) are of generally higher quality
   c) can only be used with a limited length of cable
   d) are better looking over TV

5. On the gray scale, adjacent scenes should preferably be never more than what black to white contrast ratio
   a) 12:1
   b) 10:1
   c) 5:1
   d) 2:1

6. If the picture on the TV monitor appears washed out or over-exposed you should
   a) increase the f stop to a larger number
   b) put more lighting on the scene
   c) decrease the f stop to a smaller number
   d) change the focus of the lens

7. One half of a complete picture is called a field. It
   a) contains all of the odd or even scanning lines of the picture
   b) contains 262 ½ lines
   c) takes two fields to make one frame of interlaced scanning lines
   d) is scanned 60 times a second
   e) all of the above

8. In order to transmit both picture and sound signals on a single cable
   a) only a videodistribution system may be used
   b) only an RF distribution system may be used
   c) either a video or RF distribution system may be used
   d) a new type distribution system will have to be devised

9. The electron beam of picture monitors is locked in step both vertically and horizontally, with the electron beam of the pick up tube by
   a) sync pulses
   b) video band
   c) the raster
   d) the audio modulator

10. The depth of field in a particular scene may be increased by
   a) increasing the amount of light and using a smaller aperture on the camera
   b) using a smaller f stop number and keeping the light level the same
   c) decreasing the intensity of the lighting
   d) using a larger aperture on the camera

11. That part of the fluorescent screen of the picture tube illuminated by the sweeping electron beam is called the
   a) raster b) vidicon c) cathode ray d) resolution

12. One complete picture on a television screen occurs every
   a) 1/100th sec
   b) 1/60th sec
   c) 1/30th sec
   d) 1/16th sec

13. Most CCTV cameras are random interlace. This means
   a) no effort is made to equally space each scanning line
   b) horizontal hold and vertical hold are separate controls
   c) it is an RF distribution system
   d) each field has 262 ½ lines

14. RF is an abbreviation for
   a) radio first then picture
   b) radio frequency
   c) radial signal following picture
   d) ready first

15. The major operational cost of a CCTV system of a continuing nature is
   a) maintenance
   b) replacement of tubes
   c) personnel
   d) electricity

16. When the picture on a TV receiver appears to be rolling you should adjust
   a) horizontal hold
   b) vertical hold
   c) contrast
   d) focus

17. Videotape is available in widths of
   a) 2 inch
   b) 1 inch
   c) ½ inch
   d) a, b and c
   e) a and c

18. Back lights are used to
    a) light the background
    b) give depth to the scene
    c) reflect light to the camera
    d) diffuse the light from a spot

19. Research on instruction over television indicates
    a) students learn as well from TV as from other sources
    b) students viewing TV lessons score two to four grades higher on standardized tests with national norms
    c) students learn twice as fast from viewing televised lessons
    d) televised lessons tend to result in lower achievement test scores

20. When playing a videotape you should
    a) adjust thread control to standby
    b) adjust tracking to maximum reading
    c) set head speed to 3600 rpm
    d) set audio record level to peak at 100%

21. When recording a videotape you should
    a) adjust thread control to standby
    b) adjust tracking to maximum reading
    c) set head speed to 3600 rpm
    d) set audio record level to peak at 100%

22. When making a video tape recording the video record level should read
    a) 0-20%
    b) 40-60%
    c) 80-100%
    d) over 100%

23. If there is too little contrast in the picture being transmitted on a CCTV system, adjustment might be necessary in
    a) audio modulation
    b) audio gain
    c) video modulation
    d) video blanking

24. Too little contrast in the picture being distributed on a CCTV might also be the result of
    a) too little audio amplification
    b) improper lighting of the scene
    c) too much video resolution
    d) lack of adjustable focus on the camera lens

25. List 4 manufacturers of CCTV equipment suitable for use in a school
    a) _____
    b) _____
    c) _____
    d) _____

CCTV PRE-RATING SHEET

1. Closed Circuit Television is

A.	fair	11	17	12		unfair
B.	worthless	1		4	22	13	valuable
C.	impractical		1	6	22	11	practical
D.	satisfying	6	20	11	3		disappointing
E.	unsuccessful			16	19	5	successful
F.	good	11	19	9	1		bad

2. Using CCTV for direct instruction of student is

A.	stimulating	13	15	11		1	dull
B.	impractical	1	4	7	16	12	practical
C.	stimulating	13	18	9			threatening
D.	passive	2	6	30	1		negative
E.	positive	11	20	8	1		negative

3. Summer Workshops in CCTV are

A.	good	22	13	5			bad
B.	passive			12	17	11	active
C.	valuable	19	17	4			useless
D.	satisfying	10	20	10			disappointing
E.	unsuccessful			14	17	9	successful

4. TV is contrary to most principles of education and learning

Agree		4	5	4	27	Disagree

5. Special credit and time should be given to the TV instructor because of the unusual circumstances of TV teaching

Agree	19	10	7	3	1	Disagree

6. Special compensation should be given to the TV instructor because of the unusual circumstances of TV teaching.

Agree	8	9	15	4	4	Disagree

CCTV Pre-rating sheet - page II

7. CCTV equipment requires continual maintenance and repair.

   Agree 13 : 11 : 12 : 3 : 1 : Disagree

8. The technical nature of CCTV equipment and its operation require specially trained personnel.

   Agree 18 : 11 : 6 : 1 : 4 : Disagree

9. Any good teacher will be a good TV teacher.

   Agree 2 : 5 : 10 : 10 : 13 : Disagree

10. The salaries and equipment necessary for CCTV instruction raise serious questions about its economic advantages.

    Agree 5 : 7 : 15 : 6 : 7 :Disagree

11. Special instruction is necessary for prospective TV teachers prior to their teaching over CCTV.

    Agree: 19 : 12 : 7 : 2 : _____ : Disagree

12. Television has great value for in-service use to share among teachers actual demonstrations of new techniques and new approaches.

    Agree: 24 : 10 : 5 : _____ : 1 : Disagree

13. Televised lessons tend to be more succinct than lessons given in a classroom.

    Agree: 8 : 12 : 15 : 4 : 1 : Disagree

14. What do you hope to learn from participating in this workshop? Most replies were in the area of learning techniques, operation of equipment, its cost, learning how to tape, presentation of subject matter, applications for student participation, types, advantages of TV, basics.

15. What use do you expect you will be making of CCTV during the 1968-69 year? Answers: hope freshman teachers will tape themselves for evaluation purposes, micro-teaching, use with remedial students, enrichment, outside resources, counseling faculty on advantages of TV, helping others learn TV techniques.

POST-RATING SHEET
CCTV

1. Closed Circuit Television is

   A. fair 22 : 11 : 6 : ____ : ____ : unfair

   B. worthless ____ : ____ : 2 : 14 : 24 : valuable

   C. impractical ____ : 3 : 3 : 17 : 17 : practical

   D. satisfying 22 : 12 : 5 : ____ : 1 : disappointing

   E. unsuccessful ____ : 1 : 3 : 19 : 17 : successful

   F. good 28 : 11 : 1 : ____ : ____ : bad

2. Summer Workshops in CCTV are

   A. good 30 : 9 : ____ : ____ : ____ : bad

   B. passive ____ : ____ : 1 : 9 : 30 : active

   C. valuable 27 : 12 : 1 : ____ : ____ : useless

   D. satisfying 26 : 13 : 1 : ____ : ____ : disappointing

   E. unsuccessful ____ : ____ : 1 : 15 : 24 : successful

3. The Workshop Instructors are

   A. good 30 : 9 : ____ : ____ : ____ : bad

   B. unfriendly ____ : 1 : ____ : 4 : 35 : friendly

   C. positive 34 : 5 : 1 : ____ : ____ : negative

   D. incapable ____ : ____ : ____ : 5 : 35 : capable

   E. acceptant 33 : 5 : 2 : ____ : ____ : rejecting

   F. prepared 30 : 10 : ____ : ____ : ____ : unprepared

   G. unhelpful ____ : ____ : ____ : 1 : 39 : helpful

   H. stimulating 24 : 15 : ____ : ____ : ____ : dull

   I. interesting 24 : 15 : ____ : ____ : ____ : uninteresting

   J. unsuccessful ____ : ____ : ____ : 11 : 28 : successful

4. TV is contrary to most principles of education and learning.

   Agree ____ : 1 : 4 : 6 : 29 : Disagree

CCTV POST-RATING sheet - Page 2

5. CCTV equipment requires continual maintenance and repair

Agree 14 : 10 : 5 : 5 : 6 : Disagree

6. Any good teacher will be a good TV teacher.

Agree ____ : 4 : 3 : 6 : 27 : Disagree

7. The salaries and equipment necessary for CCTV instruction raise serious questions about its economic advantages.

Agree: 1 : 12 : 12 : 4 : 11 :Disagree

8. Special instruction is necessary for prospective TV teachers prior to their teaching over CCTV.

Agree 25 : 13 : 2 : ____ : ____ : Disagree

9. This workshop did not provide the experiences expected in the following areas:

" Too much information covered too quickly", was one remark. Others were very complimentary -----"more than I bargained for", "loads of fun"... "Very beneficial," etc. One said, "I need more time and experience handling equipment".

10. This workshop could be improved by:

Time seems to be the one thing many were aware of..."more than one week needed", "covering technical aspects more fully", "prepared tapes by experts in lighting," etc.

11. The kinds of follow-up experiences that would be most beneficial are:

"making tapes for actual use", "push hard for CCTV in your own school", in-service workshop during the school year", "a second week's workshop dealing in production", "continued work in the studio", "meeting at future date to discuss progress", "evaluation of our tapes later", "seminars of members later in the year to discuss their uses of TV".

CLOSED CIRCUIT TELEVISION PROGRAM - FOLLOW-UP FORM

To: Participants of CCTV Summer Workshops

From: Glen D. Elms, CCTV Coordinator, 1101 E. Miner Street, Miner Junior High
Arlington Heights, Illinois

Please answer the following questions at your earliest convenience and return this to me at the above address. I appreciate your cooperation with this evaluation of the training program.

NAME_____ DATE_____

SCHOOL_____ DISTRICT# _____

ADDRESS_____ PHONE_____

SIZE OF SCHOOL_____ SIZE OF DISTRICT_____

TITLE OF POSITION_____

1. In which of the following CCTV workshops did you participate?

30 A. Beginners, Summer 1967

0 B. Intermediate, Summer 1967

24 C. Beginners, Summer 1968

11 D. Intermediate, Summer 1968

2. Do you have television equipment in your school district?

55 yes 1 no

If yes, please answer the following:

45 A. District had equipment before you attended workshop

48 B. District has received equipment since you attended workshop

1 C. District is considering plans for television

_____ D. Approximate total cost of equipment in district

3. What has been your participation in television since attending the workshop?

18 A. None

6 B. I am a programmer _____full time_____half time

5 C. I am in charge of CCTV in our district___full time 5 part time

_____D. I have made presentations at instructional programs
1(6), 3(3), 4(2), 5(4), 10(2), 15(1),
____How many presentations? 15-20(1), 20(1).
6 Math, 7 LASS, 6 Science, 1 P.E., 1 IA
____Instructional: what subject? in-service, training, administrative
2 math, 6SS, art, politics, materials
____Enrichment: what subject? role of AV dir., music, AV club, P.E.

____Other: Miner Bowl, guidance, in-service, art, music, student productions.

_____E. I have used television to enrich regular classroom instruction.

How? Individual instruction w/earphones, in-service training, self-evaluation of unit by classes, SS(2), demonstrations and experiments, magnification, math (2), taping shows, student presentatior showing tapes, counseling, guest speakers, gym routines, mechanical drawing, public speaking, debate, inauguration, moon shot.

_____F. Other: I have helped with TV for Parents' Night, recorded local politicians

4. Have you been involved in the training of additional personnel in the utilization of educational television?

__14__ yes __40__ no

If yes, how many? 50, 6, 40, 2(3), 3(2), 15

How long were training sessions? week, 2-a-day, varied, 6-8 wks., 1 day, 30 minutes.

__2__ Weekly

__1__ Institute Day

__1__ Summer

_____Other (please describe): AV club members 5 sessions, within our own building, after school as time permitted(3), helped others as needed.

5. Is any evaluation being made of the television program in your district?

__30__ yes __17__ no The remainder did not know.

If yes, would you briefly describe: By questionnaire on attitudes of students, by one science department, and in our own District #25

6. Would you like to attend another workshop?

36 yes 17 no

If yes, what would be your interests? Making use of different techniques and camera uses (2), producing instructional programs usable district-wide, programs for use during the following school year (2), using TV for more unusual things, experience in creating effects and constructing props (2), programming and development of instructional media(2), idea workshop--(I am not inclined to work with mechanical devices), ways to involve students(2), additional help to the classroom teacher for planning equipment use, more experience with how it is being used in schools (3), producing many small individualized tapes, utilization with primary emphasis on elementary use, working with props rather than pictures.

OTHER COMMENTS:

Standardized diagnostic reading tests for JHS could be given to problem reading students.
(2) We lack the time to do an adequate job- need teaching ½ time and ½ time TV
$ for $ we do not appear to be getting our money's worth from TV -too much goes wrong with the equipment, students operating it tend to harm it; the show's worth should be evaluated before production, the programmers are too busy to give the type of help needed.
The District # 25 program is a tremendous facet of education and its resources are endless for programming all areas of educational value.
The institute was of great benefit to me.
I am glad I took your workshop. Glen Elms did an excellent job.
More attention to in-service training could focus efforts of teachers of the entire district on specific problems. Would like to see the expertise of T&D united with the good TV technical direction to fill this need.
The workshop was interesting, challenging and enjoyable with competent and enthusiastic instructors (2).
More time needed - classes must be taught, preparations made for these classes - released time for teachers can sometimes mean study hall for students.
I had hoped our school would have invested in a VTR but realize now the cost would be prohibitive for our situation.
Would like to work in a district where TV is used.
TV programs are only as good as the persons participating in them.
Two or three summer weeks should be used each year by paid teachers for each department. At the same time plans should be developed for instructional and enrichment programs to be taped and used during the entire school year.
I'm grateful for having had the experience. I may be able to use these techniques in publishing educational material.
TV has tremendous potential.

Student TV Questionnaire May 1967 Male Female

1. Do you enjoy mathematics? Yes No
2. Did you find math more interesting this year? Yes No
3. Are you looking forward to math next year? Yes No
4. Are you hoping math will be on TV next year? Yes No
5. Do you enjoy math when it is taught on TV? Yes No
6. If you had a choice, would you choose to watch math on TV? Yes No
7. Does the TV teacher answer most of your questions? Yes No
8. Is television instruction more to the point than lessons presented in the classroom? Yes No
9. Should the TV teacher make assignments? Yes No
10. Should there be more teachers on TV? Yes No
11. Does your teacher re-teach the same information after lesson is completed? Yes No
12. Would it be of value to see some of the lessons more than once? Yes No
13. Do you think you have learned more math by watching TV? Yes No
14. Should the TV teacher work more problems in each lesson? Yes No
15. Did the lessons on TV confuse you? Yes No
16. Would you have done as well this year without TV lessons? Yes No
17. Would you prefer having your teacher introduce the TV lessons before the lesson begins? Yes No
18. Did you work harder in math this year compared to last year? Yes No
19. Would you like to have your math teacher present lessons on TV? Yes No
20. Do you think the TV equipment performs satisfactorily? Yes No
21. How have your math grades been this year compared with last year? Worse Same Better
22. How long should a TV lesson be? (Circle your answer) 10 15 20 25 30 Min.
23. How many days a week should there be a TV lesson? (Circle answer) 1 2 3 4 5
24. Which subjects do you think should be taught on television?
25. How can we improve TV instruction?

Please add any other comments pertaining to mathematics or TV on the back. Thank you. 7

Arlington Heights Public Schools
Arlington Heights, Illinois

May 10, 1968

Report on Television Utilization

The following is the statistical breakdown of television utilization during the four week period beginning April 15, 1968 and ending May 10, 1968.

David Lang
Lee Eakright
Television Programmers
Miner Junior High School

Week of April 15, 1968-April 19

	Number of Mods	%of time
Playing Videotape Recorder	18	32.1
Recording time	6	10.7
Conference	0	0
Total Mods	24/	42.8 %
Mods Possible	56	

Tapes produced: Industrial Arts(Basic Drafting), Science (Beef Heart)

Week of April 22, 1968-April 26

Playing VTR	31	55.4
Recording time	8	14.3
Conference	3	5.4
	42/	75.1 %
	56	

Tapes produced: Mathematics (Geometry), Music (Instruments of the Orchestra)

Week of April 29, 1968-May 3

Playing VTR	39	55.7
Recording time	16	22.9
Conference	2	2.9
	57/	81.5 %
	70	

Tapes produced: Industrial Arts (datto), Math (circles), Miner Bowl, Cast, Student Council

Week of May 6, 1968-May 10

Playing VTR	34	48.6
Recording time	10	14.3
Conference	5	7.1
	49/70	70.0 %

Tapes produced: Music (Instruments of the Orchestra), Math (volume), Cast

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